

TUESDAY Seminar

SEP 28 | 6 PM

[via Zoom \(link\)](#)



THE COMPUTER ELECTRONICS AND SOFTWARE OF PRECISION MOTION IN AN AUTOMATED MANUFACTURING WORLD

(OR... “HOW DO YOU MAKE THE MOTOR TURN”?)

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Precision motion in our modern world almost always starts with a motor that turns under power. That must be combined with computer electronics and software to produce torque in the motor AND to assure exactly what motion occurs at the motor.

Outline: In this relatively short time, I hope to describe these components:

- 1) The Man-Machine Interface.
- 2) The motor's characteristics.
- 3) The rotary feedback from the motor (an encoder).
- 4) The screw-like device that translates rotary motion into linear motion.
- 5) The optional linear feedback from the system being moved.
- 6) The micro-electronics that runs it all (call it a computer).
- 7) The power electronics that delivers possibly thousands of watts to the motor.
- 8) Finally, the software that ties all of this together.

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